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09/934,257	08/21/2001	Gary M. Schneider	2512/7	6474

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EXAMINER

BOYCE, ANDRE D

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/934,257

Applicant(s)

SCHNEIDER, GARY M.

Examiner

Andre Boyce

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,13,15-18 and 53-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,13,15-18 and 53-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 29, 2004 has been entered.
2. Claims 1-3, 6, and 13 have been amended. Claims 4, 7-12, 14, and 19-52 have been canceled. Claims 53-64 have been added. Claims 1-3, 5, 6, 13, 15-18, and 53-64 are pending.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-3, 5, 6, 13, 15-18, and 53-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 59 recite the limitation "said user". There is insufficient antecedent basis for this limitation in the claim. Claims 2, 3, 5, 6, 13, 15-18, 53-58, and 60-64 depend therefrom.

Claims 54 and 61 are rendered vague and indefinite. Applicant fails to define the term  $a_i$ , found in the equation.

Claims 55 and 62 are rendered vague and indefinite. Applicant fails to define the term  $z_{im}$ , found in the equation. However, Applicant does define  $z_{in}$ , which is not in the equation.

Claims 56 and 63 are rendered vague and indefinite. Applicant fails to define the terms  $z_{2i}$  and  $b_{land}$ , found in the equation.

Claims 57 and 64 are rendered vague and indefinite. Applicant fails to define the term  $b_{land}$ , found in the equation.

Claim 58 is rendered vague and indefinite. Applicant fails to define the terms  $z_{nn}$  and  $b_{capital}$ , found in the equation.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 6, 13, 15-18, 54, 56, 57, 59, 61, 63, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ell et al (US 2003/0036852), in view of McCauley (USPN 6,058,351).

As per claim 1, Ell et al disclose a method for developing a custom farm management plan for production agriculture pertaining to a farm (management of

crop production, ¶ 0003), comprising the steps of: obtaining input information pertaining to a farm from said user via an electronic communications network (modem data transfer, ¶ 0047); obtaining third-party financial information (third-party business packages including information related to the cost of controller application maps 132, ¶ 0092); analyzing said input information pertaining to said farm and said third-party financial information (imported into mapping software 100 for use with decision support and analysis, ¶ 0092), including display or provision to said user (computer display 100, figure 1). Ell does not explicitly disclose a mathematical model having an objective function for profit maximization bounded by resource constraints, and maximizing the objective function to generate a corresponding first custom farm management plan based on said input information and said third-party financial information, the objective function indicative of a corresponding economic performance of the farm. McCauley discloses a mathematical model having an objective function to determine the maximum output provided by resource constraint inputs for a farm management zone (column 5, lines 28-35). Both Ell and McCauley are concerned with determining effective farm management zones, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a mathematical model having an objective function for profit maximization bounded by resource constraints and maximizing the objective function to generate a corresponding farm management plan in Ell, as seen in McCauley, as an effective way a farmer can optimize crop yield as a function of inputs (McCauley: column 1, lines 17-21).

As per claim 2, Ell et al disclose the custom farm management plan comprising at least one of a graphical display and a tabular display of (computer display, figure 1) crop selection (crop selection input, ¶ 0042), and allocation of farm resources for seasonal or multi-seasonal cropping strategies (yield goals, ¶ 0154).

As per claim 3, Ell et al disclose farm resources comprising one or more of the following: capital, land, labor, machinery, crop storage, irrigation system capacity and water rights, and nutrient loading, since the resources are either explicitly stated in Ell or inherent therein, since these resources are old and well known in the farming industry.

As per claim 5, Ell et al disclose at least one farm management preference selected from the group of agronomic, operational and physical farm information (agronomic data 118, ¶ 0041).

As per claim 6, Ell et al disclose the third-party financial information is selected from the group of seed prices, fertilizer prices, production contracts, agriculture insurance rates, agriculture marketing information, agriculture consultant's information, agriculture accounting information (third-party business packages including information related to the cost of controller application maps 132, ¶ 0092), and lender's interest rates.

As per claim 13, Ell et al disclose discloses the step of performing an iterative process to determine at least one additional farm management plan (create and run various scenarios, ¶ 0253), wherein said iterative process comprises modifying at least one controllable variable associated with the mathematical model, said at least

one controllable variable selected from the group of crop programs, crop rotation patterns (i.e., crop scouting, ¶ 0210), different amounts of production contracts, different types of production contracts, and crop insurance.

As per claim 15, Ell et al disclose said iterative process comprises modifying at least one uncontrollable variable of the mathematical model, said at least one uncontrollable variable selected from the group of crop prices, yields (¶ 0154) and production costs.

As per claim 16, Ell et al disclose said user selecting a desired farm management plan that meets desired goals from the first farm management plan and the at least one additional farm management plan (yield goal lab 280, ¶ 0154).

As per claims 17-18, Ell et al disclose said user compares between the first farm management plan and the at least one additional farm management plan based on gross income, downside risk, opportunity cost risk and resource use (i.e., products and instructions, ¶ 0254), and the desired farm management plan determined from profit maximization (profit analysis calculator 326, ¶ 0174), risk minimization, resource minimization, and environmental stewardship.

As per claims 54, 56, and 57, Ell does not disclose the resource constraints expressed as:  $\sum a_{ij}x_j + a_{in}x_n \leq b_i$ ;  $\sum x_1z_{1n} + x_2z_{2i} + \dots x_nz_{3n} \leq b_{land}$ ; and  $\sum x_1 + x_2 + \dots x_n \leq b_{land}$ , including various constraint coefficients that represent a measure of resource consumption of resource and where b represents a maximum farm resource limitation for a resource. McCauley discloses maximum element output vector Z ( $P_i$ ) in position  $P_i$  of the management zone (column 5, lines 17-20).

The vector includes all the resources of position  $P_i$  and is an indication of the maximum number of resources used at that particular position  $P_i$ , which includes the acreage of the land (i.e.,  $b_{land}$ ). Both EII and McCauley are concerned with determining effective farm management zones, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the resource constraints expressed as seen in above in EII, as seen in McCauley, as an effective way a farmer can optimize crop yield as a function of inputs (McCauley: column 1, lines 17-21).

Claims 59, 61, 63, and 64 are rejected based upon the rejection of claims 1, 54, 56, and 57, since they are the system claim corresponding to the method claim.

### ***Response to Arguments***

7. In the Remarks, Applicant argues, with respect to claim 1, that EII does not teach or suggest using third-party financial data in an objective function for profit maximization to generate a farm plan. The Examiner submits McCauley as disclosing a mathematical model having an objective function to determine the maximum output provided by resource constraint inputs for a farm management zone (column 5, lines 28-35).



***Allowable Subject Matter***

8. Claims 53, 55, 58, 60, and 62 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Remley et al (US 2002/0023052) disclose transacting exchanges of agricultural products with a guaranteed level of revenue.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

adb

*Romain Jeanty*  
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*Art Unit 3623*  
*April 14, 2004*